



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
**REGION IX**  
**75 Hawthorne Street**  
**San Francisco, CA 94105-3901**

April 10, 2007

Joan Card  
Director, Division of Water Quality  
Arizona Department of Environmental Quality  
1110 West Washington Street  
Phoenix, AZ 85007

Dear Ms. Card:

Thank you for the opportunity to comment on the draft Integrated Report containing the 2006 Clean Water Act Section 303(d) list. This letter provides our comments on the proposed listing decisions contained within the draft Report.

We commend the Department for its diligent efforts to prepare a comprehensive assessment of the quality of Arizona's waters and for the detailed presentation of its findings. We appreciate Arizona's continued use of the integrated reporting guidance, combining the Section 305(b) report and Section 303(d) list into a comprehensive assessment of the State's waters. We are also pleased to see that one waterbody, Nutrioso Creek, is proposed for delisting based on TMDL development, changes in livestock management and other watershed improvements along with supporting monitoring results to demonstrate no remaining impairments.

This letter outlines our major concerns, which are similar to those provided in previous comment letters on the State's 2002 and 2004 303(d) lists since the 2006 assessment methodologies appear very similar. The State's Impaired Waters Identification Rule (IWIR) is inconsistent with federal listing regulations and guidance, resulting in waters that are omitted from the State's 303(d) list. We again recommend the State revise its assessment methodologies to allow water quality assessment decisions that are consistent with federal regulations and guidance.

We have also identified our concerns regarding retention of previously listed waters, and application of narrative and numeric water quality standards to other waters, in the draft Report that were apparently omitted from the State's 2006 303(d) list.

Retention of Previously Listed Waters

We note the State did not to retain on the 2006 303(d) list the waters and pollutants added to the list by EPA in 2002 or 2004. The draft report does not provide adequate explanation regarding the State's decision to omit these previously listed waters. If new data and/or information (along with previously considered data) were available for evaluation, has this

changed the assessment decision? If no new information was available, then has the State assessed certain waters as inconclusive or non-impairment? If some waters may not have new information and the older data indicated impairment, has application of the State's Impaired Waters Identification Rule (IWIR) resulted in the State removing them from the 2006 list? In each of these cases, the State is obligated to provide good cause for delisting waters that were previously included on the 2004 list (40 CFR 130.7(b)(6)).

In our review of the draft Report, we noted footnotes within the assessment summaries of individual waters, especially where EPA has previously listed waters and/or pollutants. The State has added the following footnote below the overall conclusion box:

"...highlights indicate EPA impairment based on EPA assessment and listing criteria. This listing may change when EPA reviews and approves the 2006 impaired waters list. Such listings do not satisfy requirements established in Arizona's IWIR; therefore, they are not included in the list of Arizona's impaired waters (Appendix B and Appendix C)."

This language mistakenly implies there are two separate lists; the State's list based on its methodology and EPA's list based on its methodology. The final 2004 303(d) list, approved by EPA on March 17, 2005, includes both agencies' determinations of impaired waters in Category 5. As the State completes its review of waters on the 2004 list, even though the original listings may not have been made according to Arizona's IWIR, they cannot be removed from the previously approved list based only upon application of State rules. As discussed above, the State must provide good cause, such as new data and/or information that changes the assessment decision, to support removing waters from the previous list.

#### Application of Narrative Water Quality Standards

We understand the State's view that State law bars the Department from applying narrative water quality standards for assessment purposes absent adopted implementation procedures. However, federal regulations require the assessment of whether waters are attaining all applicable standards including narrative standards (40 CFR 130.7(b)(3)). If the State is unable to evaluate potential exceedances of narrative standards (e.g., in cases where consumption advisories are in effect or where sediment, fish tissue, or biological data and information indicate that narrative standards are not attained), then EPA will conduct its own evaluation and, if necessary, add waters to Arizona's Section 303(d) list due to narrative standards violations.

For example, there are several waters for which consumption advisories are in place for several waters due to the presence of toxic pollutants in resident fish or other aquatic species. We note that consumption advisories have been issued for the following waters in Arizona: Alamo Lake, Coors Lake, Upper and Lower Lake Mary, Long Lake, Lyman Lake, Soldiers Lake, Soldiers Annex Lake, and Parker Canyon Lake for mercury; Painted Rock Borrow Pit, Painted Rocks Reservoir, and portions of the Gila, Salt and Hassayampa Rivers. Consistent with our listing guidance, EPA will add those waters to the list where specific data indicate these waters are impaired.



### Assessments of Waters Which Do Not Meet Minimum Sample Size Requirements

In its decision on the 2004 list, EPA found that the State had not provided a valid technical rationale in support of its use of minimum samples size requirements as a precondition for assessing attainment of most water quality standards (see EPA's decision letter dated November 16, 2004). EPA disapproved the State's decision not to list several waters because EPA found that sufficient data were available to support clear conclusions that applicable numeric water quality standards were exceeded. EPA added these waters and pollutants to the State's final 2004 list.

We repeat our concern that the State's proposed application of minimum sample size requirements is inconsistent with federal listing requirements. We understand that the Department's ability to change its listing methodology is limited due to State regulatory provisions; however, EPA will carefully review situations where waters were not listed due to minimum sample size considerations. Our preliminary review indicates that Watson Lake nitrogen may be impaired and thus EPA may add it, if the State decides to not include it or others like it on the 2006 list.

### Assessment of Chronic Standards for Toxic Pollutants

The proposed listing decisions appear to incorporate a revised procedure for assessing compliance with chronic water quality standards for toxicants. We understand that these assessment provisions are based on the State's application of the approved chronic standards for toxic chemicals (R18-11-12.C). It appears that the proposed assessment methodology is inconsistent with the state standard for chronic toxicants and with federal listing guidance (Guidance for 2006 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d), 305(b) and 314 of the Clean Water Act, EPA, July 29, 2005). The draft Report provides no rationale to support the proposed methodology. EPA strongly recommends that the State revise its assessment methodology for chronic toxicants (and associated assessment decisions) to be consistent with the applicable standards and with federal assessment guidance. Based on EPA's preliminary analysis of the draft Report, we have identified several waters and pollutants that may exceed the applicable chronic water quality standards:

Cave Creek selenium  
Little Colorado River (Silver Creek) lead  
Little Colorado River (West Fork) copper  
Mule Gulch cadmium  
Boulder Creek selenium  
Butte Creek (headwaters) mercury  
Lynx Lake manganese

### Application of 10% Exceedance Rate and Binomial Tests for Conventional Pollutants

The proposed listing methodology would apply a decision rule for most conventional pollutants that requires greater than a 10% exceedance rate, with 90% confidence, in order to include waters on the 303(d) list. As discussed in our decision on the 2004 list, EPA accepted

the State's rationale provided to support the application of this decision rule in 2004. The State cited as its rationale for this decision rule an interpretation of EPA's previous listing guidance. However, EPA's 2006 Integrated Report Guidance (pg. 39) clarifies that we do not recommend the application of a 10% exceedance threshold (particularly within the context of a binomial statistical test) unless the 10% rule is specifically consistent with the State water quality standards (e.g., for a standard expressed as a 90<sup>th</sup> percentile value). In order to continue applying this decision rule for the 2006 Section 303(d) list, the State would have to provide a rationale that demonstrates how the methodology is consistent with applicable water quality standards. Our preliminary review of the draft report indicates that several waters appear to exceed water quality standards in greater than 10% of available samples and would therefore appear to warrant listing for dissolved oxygen and/or pH, including Black Canyon Lake, Cave Creek-South Fork, Gibson mine tributary, Parker Canyon Lake, Roosevelt Lake and Woods Canyon Lake.

#### Natural Source Exemptions

We note that the State proposes not to list several waters based on the natural sources exclusion. We have identified and have concerns regarding the following waters: Dankworth Ponds, Roper Lake, Beaver Creek, Granite Basin Lake, Big Sandy River and Santa Maria River. We are likely to request detailed documentation that demonstrates that any water quality standards excursions in these waters are due solely to naturally occurring sources.

#### Consideration of All Existing and Readily Available Data and Information

Federal regulations require the State to "assemble and evaluate all existing and readily available water quality-related data and information" to develop its Section 303(d) list (40 CFR 130.7(b)(5)). This broad mandate addresses data and information types in addition to water column data, including (but not limited to) aquatic sediment data, tissue data, biological data, toxicity data, physical integrity data, and data and information concerning fish kills or other water quality problems. It appears that the State focused its water quality assessments solely on water column data, and it is unclear whether the State actually assembled and evaluated all existing and readily available water quality-related data and information for the 2006 assessment.

We understand the State's view that the IWIR precludes assessment of narrative standards exceedances absent adopted implementation provisions, however, the State is still required to evaluate other water quality-related data and information. The final Report or supporting documentation should demonstrate the State has met this requirement. The IWIR provides ADEQ with the discretion to use data which does not meet every QA/QC requirement if the data are generally reliable. To the extent the State did not actually apply any water quality-related data and information which it obtained in its assessment effort, the State must submit a description of the data or information with a rationale for the decision not to apply it in the analysis. As discussed above, EPA may need to re-evaluate these data and information sources in our review of the State's final listing decisions.

If the State did not assemble all available data and information, we request that you identify available data and information sources which ADEQ did not consider to assist us in obtaining and evaluating them. We would appreciate the opportunity to understand whether



there are available data and information sources the State did not consider as soon as possible, so that EPA can begin working with you to assemble and evaluate these sources.

We expect the Department to assemble and evaluate any data or information sources identified by commenters on the 2004 list that were not provided or which became available following the cutoff of new data and information for that listing cycle, and to consider these additional data and information sources for the 2006 listing cycle.

#### Assessment Methodology

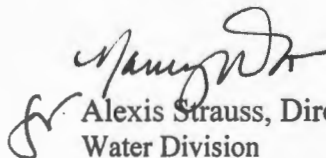
While EPA takes action only on the State's decisions regarding waterbody-pollutant combinations, and we do not take action on the State's assessment methodology, we are obligated to comment on the section titled "Partial Approval and Over-filing" within the Assessment Methodology document submitted along with the draft Report. We hope this document will more accurately reflect that EPA's action on State's 303(d) submittals consists of three options: approval, disapproval or partial approval/partial disapproval.

#### Conclusion

We appreciate your consideration of our comments, and we look forward to working with your staff in the coming weeks to address our concerns and identify data and information sources that have not been evaluated. We believe you have produced a generally sound framework for the listing assessments. We will continue to provide input on the State's efforts to revise assessment methodologies to be more consistent with federal regulations and guidance. In addition, we look forward to working with the State to facilitate Arizona's on time submittal of its 2008 Integrated Report.

If you have questions concerning our comments, please call me at (415) 972-3572 or Peter Kozelka at (415) 972-3448.

Sincerely,

  
Alexis Strauss, Director  
Water Division